REAL PROPERTY SYSTEM
PILOT TEST

1. INTRODUCTION:

Overview: The Real Property System (RPS) being pilot tested is Federal RPM. This system
was chosen for pilot testing from among several others because vendor
demonstrations indicated it would meet the highest percentage of system technical
requirements of any software reviewed during the market research phase of
project development. The RPS will replace RSMIS, the current RPS which is a
hierarchical data base, using character based software. RSMIS is also a
distributed data base with files residing at several real property management
offices located throughout the US. Data from these offices is uploaded on a
monthly basis to a central data base for department wide and bureau wide
reporting.

Federal RPM is a hybrid client server/Internet based system using a central data
base accessible by users either through the Internet or other communications
channels. Federal RPM is moving toward an entirely Internet based application
with a tentative target for completion of the end of CY 1999.

Purpose: The purpose of the testing is to determine if, in fact, DOC user can effectively and
efficiently load data, modify records, generate reports and delete records in
accordance with the technical requirements for a DOC real property system. The
test will also be used to identify business practices which may need modification
and software modifications which may be needed to make the system totally
functional.

Scope: The test will be conducted using a dummy data base composed of a limited
number of representative real property records. The test will be conducted using a
client server/Internet architecture accessing a central Oracle data base. The
system will be exercised from different hardware setups and will be tested against
all critical requirements.

2. TEST PROCEDURES:

Objectives: The test will determine if Federal RPM meets the critical technical requirements
for a real property system. The system will be tested by actual creation and
modification of a data base, report generation and interface of the data base with
GSA RENT and STAR systems.

Guidelines: Testing will be done by Real Property system users. The system will be used
concurrently by several users and evaluated for performance. The results of each
test will be documented on test result form and the results will be consolidated in
a Systems Test Evaluation Matrix.

Criteria: Test will require the system to perform without system errors, to meet all critical

requirements for the real property system and to produce accurate reports which meet all DOC, GSA and other agency reporting requirements.

Errors　　　　Any failure to meet the error criteria will require the vendor to make the necessary changes to the software to correct the problem and to retest the system using the same data and/or procedure which resulted in the error. Any failure to meet critical requirements will be addressed by; (1) an immediate change to the software , (2) an acceptable change to DOC business practices or (3) a commitment from the vendor to make needed software changes as part of the customization process.

3. TEST SUMMARY:

Prerequisites: To support the test the Government will need to make an Oracle server available to the vendor. The Government will need to create and load a dummy data set for the test which will be representative of the DOC real property.   The government will also need to make between 10 1nd 20 selected employees and workstations available for the duration of the actual test.

Traceability: All tests will be documented and results will be readily traceable to the real property system requirements. To this end a matrix map will be developed which clearly links the tests to technical and functional requirements for the real property system.

4. Test Descriptions: See attachment 1.

5. Regression testing: See Errors in 2. above.

4.1.a Test Name

Data Entry and Database Modification Test (C.4.2.1.3.2, C.4.2.1.4.3, C.4.2.1.6.1, C.4.2.2.2.3)

4.1.b Purpose of Test:

Verify ability to Add, Update, Browse and Delete Database Records; Verify existence of all Mandatory Data Elements; Verify ability to assign multiple Property Records to an Installation Record and multiple Occupant Records to a Property Record. Test tracking of Operating and Capital Lease, Depreciation and Seismic Safety data. Document ease of use and logical movement through system. Test ability of multiple users accessing the system simultaneously.

4.1.c Method

STEP 1:   Add Records to the Database. Information from RSMIS Database Display Reports is keyed in to system by multiple users. Data Element Check List is maintained to verify data elements existence. Records representing the different Estate Types will be entered as well as Lease, Depreciation and Seismic Safety data. Transaction Edits will be verified for key data elements.

STEP 2:   Records are retrieved and test data elements are changed. Changes are verified. Mandatory data elements are checked to make sure data must be entered (not left blank). Transaction Edits are verified. Two Users will attempt to update the same record at the same time. Results will be documented.

STEP 3:   Multiple Records will be retrieved and Browse functions tested. Ease of navigation will be tested and documented. Ability to jump to related screens will be tested.

STEP 4:   Records will be deleted from the database. Users will start at Occupant Level and progress to Installation Level. An Installation Record will be deleted to test the cascading nature of the delete function.

STEP 5:   Audit Trail information will be checked to verify Database Modification activity.

4.1.d Test Input

A representative sample of data should be entered for the 3 different categories of property within an Installation; Land, Buildings and Structures. Each of the 6 Estate Types should be represented; DOC Owned, DOC Leased, GSA Owned, GSA Leased, GSA Owned Delegated and GSA Lease Delegated. Data should also include Operating and Capital Leases, Depreciation Records and Seismic Safety Records. Data will be generated from the RSMIS system in Database Display Format.

4.1.e Expected Results

Records are Added, Updated, Browsed and Deleted. Audit trail information verifies each transaction excluding browsing.

Multiple Occupants and Properties are added within an Installation. Properties include Land, Buildings and Structures. The 6 Estate Types are represented. Lease, Depreciation and Seismic Safety data is captured by the system.

The majority of data elements are captured by the system. All Mandatory Data Elements are captured by the system.

4.2.a Test Name

Mass Changes (C.4.2.1.2.2)

4.2.b Purpose of Test:

To verify the capability to perform mass changes within or between bureau system of assignment of property items. Types of mass changes would include reassigning the management office responsible for a particular installation or occupant within an installation.

4.2.c Method

Step 1   Change NOAA line office from one office responsible to another.

Step 2   Change NOAA line office acronym for all occupant records.

4.2.d Test Input

Initiate the change of a NOAA line office to another NOAA line office and change the office responsible code for a specific NOAA line office to another office responsible code.

4.2.e Expected Results

All appropriate records will have been changed.

4.3.a Test Name

Ad Hoc Reporting Capability (C.4.2.1.7.2)

4.3.b Purpose of Test:

Verify ability to generate Ad Hoc Reports from system data. Detail ease of use and logical process. Demonstrate ability to distribute output to user desktop.

4.1.c Method

Attempt to generate a report emulating output from a current RSMIS system report generated as an ad hoc report. Verify output to desktop in several formats (i.e. screen, flat file, printer).

4.3.d Test Input

Generate an Ad Hoc report using vendors report generating software and compare to RSMIS system Ad Hoc report

4.3.e Expected Results

Reports will contain same information. Reports delivered in various format.

4.4.a Test Name

Categories of Real Property (C.4.2.1.4.1)

4.4.b Purpose of Test:

Verify the ability of the system to track and differentiate between the following three (3) categories of real property: 1) Capitalized real property; 2) Non-capitalized real property; and 3) Leased real property. Verify that the system administrator may define both the capitalization threshold and estimated service life which will, as a result, automatically define a real property asset to be either capitalized or non-capitalized. Verify that the system can identify and accurately categorize Leased real property as either capital or operating leases.

4.4.c Method

STEP 1: Verify that the capitalization threshold and estimated service life required to differentiate between Capitalized and Non-capitalized real property can be defined by the system administrator. Record results. If result is positive, both items should be set by the system administrator prior to continuing this test.

STEP 2:   Information from RSMIS Database Display Reports is keyed into the system. Records representing the different Categories of Real Property will be entered.

STEP 3: If the property is owned, determine that the system has accurately defined each real property asset as either Capitalized or Non-capitalized. If the property is leased, verify that the system has accurately defined the lease as either capital or operating. Results will be documented.

4.4.d Test Input

A representative sample of data should be entered for the 3 different categories of property. Both DOC Owned and DOC Leased records should be entered, including Capitalized and Non-capitalized real property and Operating and Capital Leases. Data will be generated from the RSMIS system in Database Display Format.

4.4.e Expected Results

Records are Added for each of the three (3) categories of real property and capitalization criteria is defined by the system administrator. Leases can be identified as either capital or operating.

4.5.a Test Name

Audit Trail and History Records (C.4.2.1.6.3)

4.5.b Purpose of Test:

Verify the existence of an audit trail and history records for all transactions taking place within the database. Assess the types of information currently maintained by the system against those required by DOC (ie. the type of transaction, user performing the transaction, date and time). Determine if the system has the capability to store a snapshot of all current database records on a fixed annual schedule (end of each fiscal year). This record should be retained and available online for review and analysis for a specified length of time (to be determined by DOC policy).

4.5.c Method

STEP 1:   Update and delete records that have been added the Database. Document and maintain list of changes made to cross-check with the audit trail/history files that are created by the system.

STEP 2:   Retrieve audit trail/history files that have been created subsequent to Step 1 above and perform cross-check. Document results.

STEP 3:   Verify that system has the capability to store a snapshot of all current database records on a fixed annual schedule. System administrator should set a default date and then user should test the accuracy of results by accessing this record online.

4.5.d Test Input

A representative sample of database modification activity should occur: Adds, Updates, and Deletes. Data altered for this test should be noted on the appropriate Database Display Reports.

4.5.e Expected Results

Records are Added, Updated, and Deleted. Audit trail information/history files verify each transaction. Sample snapshot in time is captured and easily accessible online.

4.6.a Test Name

Pre-Defined Reports (C.4.2.1.7.1)

4.6.b Purpose of Test:

Verify that a menu of pre-defined reports does exist. Verify that these pre-defined reports can be modified without the intervention of a programmer and that new reports can easily be added to the menu. Verify that existing reports or newly created reports can capture, classify, summarize and report current year and cumulative data on capital acquisitions, improvements, leases, depreciation and operating expenses up to the Bureau and Departmental levels. Verify that reports can be sorted by various and multiple data elements. Assess the types of media that reports may be produced on. Verify that reports can be produced automatically on a pre-defined schedule and sent to the designated recipient by electronic means, as well as in hard copy. Verify that reports may be routed to multiple output devices.

4.6.c Method

STEP 1:   Access the system's reporting vehicle. Prepare a list of all existing pre-defined reports that are currently available in the system.

STEP 2:   Retrieve sample reports. Note how reports are presented and whether or not they can be sorted in various ways. Document types of media available for viewing reports and the ease of use for each.

STEP 3: Determine whether any existing reports currently summarize and report current year and cumulative data.

STEP 4: Route reports to multiple output devices. Document results.

4.6.d Test Input

A representative sample of various media and output devices should be added to tables and menus.

4.6.e Expected Results

Ad hoc reports are easily accessed and obtained in various media forms. Reports can be sorted in a variety of ways. Summary and cumulative data is easily obtained.

4.7.a Test Name

Automatic Distribution of Reports to User Workstations (C.4.2.2.4.3)

4.7.b Purpose of Test:

Verify that specified reports can be automatically distributed to users' workstations and/or local printers at pre-defined intervals. Verify that users may also disable the printing of specific reports at their location.

4.7.c Method

STEP 1: Choose an existing report and set the system to automatically distribute it to specific users at a specific time. Verify that report is received at the specified time and location.

STEP 2: After the test above has been completed, certain users should disable the printing of those report. Document results.

4.7.d Test Input

A representative sample of users and their workstation/printer environments should be used when setting the automatic distribution for the report being tested.

4.7.e Expected Results

Reports will be successfully distributed at the designated user workstations/printers. If the user has disable the printing, the report will not be received.

4.8.a Test Name

User Interface (C.4.2.2.7)

4.8.b Purpose of Test:

Demonstrate an integrated menu-driven approach to system access and query activities.

4.8.c Method

Exercise system interface to demonstrate menu-driven capabilities.

4.8.d Test Input

Demonstrate both expert and novice modes of system operation.

4.8.e Expected Results

Systems user interface is logical and user friendly.

4.9.a Test Name

On-screen Messages (C.4.2.1.3.3)

4.9.b Purpose of Test:

Demonstrate that the system will produce error messages, informational messages and tutorial information.

4.9.c Method

Update a record with incorrect data to generate an error message. Test "help" capabilities by querying for valid data values. Demonstrate tutorial capabilities by accessing help screens

4.9.d Test Input

See section 4.9.c

4.9.e Expected Results

System will display error messages, provide on-line lookup tables and tutorial help screens.

4.10.a Test Name

General (C.4.2.1.8.3,C.4.2.1.8.4, C.4.2.1.8.8,C.4.2.8.11)

4.10.b Purpose of Test:

Demonstrate ability to populate the current screen with related information previously captured to minimize data entry.

Demonstrate notes field capability.

Demonstrate Year 2000 readiness.

4.10.c Method

Populate a data entry screen and demonstrate ability to carryover pertinent data from screen to screen. Enter extended notes related to specific record. Test Year 2000 readiness.

4.10.d Test Input

See section 4.10.c

4.10.e Expected Results

Pertinent data will be carried from one screen to the next. Data entry screens will have "notes" field. System will be Year 2000 compliant.

4.11.a Test Name

Management Office Test (C.4.2.1.2.1)

4.11.b Purpose of Test:

Verify the ability to record the appropriate management office responsible for each real property record entered into the system (i.e. O/S, EASC, CASC, MASC, WASC). Installation level records should have only one management office; however, occupant/bureau records may have differing management offices within the same installation.

4.11.c Method

STEP 1:   Add installation, property and occupant records to the Database. Multiple bureau records will be keyed into the system by separate users, representing the various management offices.

STEP 2:   Verify that system is capable of recording management offices at each level (installation, property, occupant). Results will be documented.

STEP 3:   If there are multiple occupants within a given installation that have differing management offices (i.e. EASC is responsible for 2 occupants, while CASC has responsibility for another tenant within the same building), have separate users enter the appropriate occupant records to verify the system's ability to accept more than one management office within the same installation record. Results will be documented.

STEP 4: Assess whether table is capable of holding eight (8) separate management offices to choose from when entering data. Results will be documented.

4.11.d Test Input

A representative sample of data should be entered for the installation, property, and occupant levels. Data will be generated from the RSMIS system in Database Display Format.

4.11.e Expected Results

Records are added and management offices are recorded at all three levels (installation, property, occupant).

Multiple management offices for each occupant within a building are easily added to the Installation record. System is capable of storing 8 different management offices.

4.12.a Test Name

Standard Description Codes Test (C.4.2.1.3.1)

4.12.b Purpose of Test:

Verify the ability to select the standard description codes from a pre-defined list in the corresponding field. The standard description codes should appear in a pull-down or pop-up menu.

4.12.c Method

STEP 1:   Add Records to the Database. Verify the data fields exist for standard description codes as defined in Appendix A of the Section C requirements.

STEP 2: Confirm that standard description codes are available from pop-up windows or pull-down menus.

STEP 3:   Mandatory data elements are checked to make sure data must be entered (not left blank).

4.12.d Test Input

A representative sample of existing DOC records will be entered.

4.12.e Expected Results

Fields with pre-defined standard description codes populated from pull-down or pop-up menus will exist.

4.13.a Test Name

Facilities Management (C.4.2.1.5)

4.13.b Purpose of Test:

To view the facilities management module and analyze its capabilities for use by the Department of Commerce. Verify that module include the following functions:

- ability to track preventive maintenance schedule on systems and equipment by system/equipment name, date, cost.
- ability to track space assignments from as high as the bureau to as low as line office program (organization and task codes)
- track/store maintenance costs by name of task, date, and cost
- custodial requirements
- ability to track utility costs for each installation by type of utility, period covered, amount of utility used, cost, and convert amount of utility used to BTU's.

4.13.c Method

STEP 1: Access Facilities Management Module and review for prospective use by DOC.

STEP 2: Establish a Preventive Maintenance (PM) record for a major system in a building.

4.13.d Test Input

See 4.13.d Above

4.13.e Expected Results

System will track and report on PM activity entered in system.
Capable of items of interest to DOC from list above.

4.14.a   Test Name

System Security (C.4.2.2.3)

4.14.b Purpose of Test:

To view the security functions and analyze its capabilities for use by the   Department of Commerce. Verify the security can perform the following:

•   granting and relinquishing access rights.
•   security mechanism at the screen, record, and field level.
    •   only the bureau's system administrator has access to modify bureau related system tables and provide access to personnel of their bureau.
    •   restrict access at the data element level for each user ID. All unauthorized log-in and access attempts will be written to a log file with date, time, terminal ID, user ID, and function ID recorded. The log file should be accessible via query and report.
    •   maintain an audit trail of all changes to the database including from which terminal the change was made and the ID of the person who made the change.
    •   If more than one bureau is supported by the proposed system on a single host, each system security requirement will be separately applicable to each bureau's data.
    •   controls within the RPS will have been designed to support operation in accordance with both OMB Circular A-123 (Internal Control Systems) and OMB Circular A-130, appendix III (Security of Federal Automated Information Systems).

4.14.c Method

        STEP 1: Create two different profiles, one with certain access to a certain screen and field and one without access to those same screens or fields.

        STEP 2: Users will attempt to access test screen and fields. Document results.

        STEP 3: Review log access file.

4.14.d Test Input

        Two sample profiles.

4.14.e Expected Results
        Profile with access rights will be able to enter data and profile without access will be denied.

4.15.a Test Name

Methods of Acquisition (C.4.2.1.4.2)

4.15.b Purpose of Test

Verify the system is capable of generating data for general ledger entries based on the method of acquisition. Components of the general ledger are acquistion date and cost, useful life, and straight line depreciation (net book value), minimum lease payments for the five years following the current year and the total cost remaining after the five years in the term of the lease.

4.15.c Method

STEP 1: Add records which represent the different methods of acquisition.

STEP 2: Generate the general ledger reports for each of the test records.

4.15.d Test Input

A representative sample of the different methods of acquisition.

4.15.e Expected Results

Valid data reports containing the appropriate general ledger information.

4.16.a Test Name

Standard Description Codes Test

4.16.b Purpose of Test:

Verify the ability to select the standard description codes from a pre-defined list in the corresponding field. The standard description codes are and consist of:

Agency Bureau Codes -		
	1300	Department of Commerce
	1301	Office of the Secretary
	1302	Minority Business Development Agency
	1304	Bureau of the Census
	1305	National Telecommunications and Information Administration
	1306	National Institute of Standards and Technology
	1307	United States Travel and Tourism Administration
	1308	National Technical Information Service
	1310	Patent and Trademark Office
	1312	International Trade Administration
	1314	National Oceanic and Atmospheric Administration
	1315	Bureau of Economic Analysis
	1316	Bureau of Export Administration
	1317	Technology Administration
	1320	Economic Development Administration

Estate Codes -		
	10	DOC Leased
	11	DOC Owned
	20	GSA Leased
	21	GSA Owned
	30	GSA Leased Delegated to DOC
	31	GSA Owned Delegated to DOC

Property Type Codes -		
	20	Land
	30	Building
	40	Structures

DOC Acquisition Codes -		
	00	No Acquisition Code (GSA)
	01	Lease (DOC Only)

02	Construction
03	Purchase
04	Donation
05	Gratuitous Agreement
06	Exchange
07	Transfer
08	Easement
09	Condemnation
10	Reserved
11	Withdrawal from Public Domain
12	License to DOC
13	Interagency Support Agreement
14	Default of Grant or Contract
15	Airways & Airports Improvement Act (AAIA)

GSA-1166 Acquisition Codes -		
1	Public Domain (US Only)
2	Purchases, Exchanges, Donations, etc.
3	Long-Term Interest (Outside US Only)

Usage Codes -		
01	Agriculture
04	Grazing
07	Forest and Wildlife
08	Parks and Historic Sites
10	Office Building Locations
11	Military - Except Airfields
12	Airfields
13	Harbor and Port Terminals
14	Post Office (Leased Only)
15	Power Development and Distribution
16	Reclamation and Irrigation
18	Flood Control and Navigation
19	Vacant
20	Institutional
21	Hospital
22	Prison
23	School
29	Other Institutional Uses
30	Housing

40	Storage
50	Industrial
60	Service
70	Research and Development
71	Utility Systems
72	Communications Systems
73	Navigation and Traffic Aids
76	Roads and Bridges
77	Railroads
78	Monuments and Memorials
79	Miscellaneous Military Facilities
80	All Other
90	Trust
99	Trust Buildings

4.16.c Method

STEP 1:   Add Records to the Database and verify the aforementioned data fields and their codes are available from pop-up windows or pull-down menus.

STEP 2:   Mandatory data elements are checked to make sure data must be entered (not left blank).

4.16.d Test Input

See 4.16.c Above.

4.16.e Expected Results

Records will not be established unless mandatory data fields are populated with valid data.